**Verizon New England Inc.
d/b/a Verizon Massachusetts**

Commonwealth of Massachusetts

D.T.E. 01-31

Respondent: <u>William E. Taylor</u>
Title: <u>Senior Vice President, NERA</u>

REQUEST: Department of Telecommunications and Energy, Set #1

DATED: April 25, 2001

ITEM: DTE 1-10   <u>See</u> p. 17, lines 4-6: Does the increase of $1.63 for a Residence Dial Tone Line incorporate any increased demand for switched access services resulting from rate decreases? If not, recalculate the $1.63 increase to be revenue-neutral using your best estimate of price elasticity for access services.

REPLY: No, the $1.63 increase for a Residence Dial Tone Line does not incorporate any increased demand for switched access services resulting from the assumed reduction in switched access charges. There are several reasons why a demand response adjustment in this calculation is inappropriate.

First, "The Department has consistently rejected estimates of elasticity of demand as inherently speculative in nature and not subject to reasonable estimation, a position upheld by the Supreme Judicial Court." See D.P.U. 85-266-A/85-271-A at page 56 footnote 8.

Second, strictly speaking, there should be negligible response in the demand for switched access services stemming from a change in the price of switched access services exclusively. Only if interexchange carriers passed through switched access price reductions in the form of lower toll prices would there be a measurable change in the volume of switched access minutes. There would be no demand response from a reduction in switched access charges by themselves.

Third, even if reasonable assumptions concerning the flow-through of access charges to toll prices could be made, demand response from a toll price change is difficult to measure. To measure accurately the revenue effect of the proposed changes in Verizon-MA's service

prices, we would first need to know how demand for Verizon-MA's

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services would change as their prices change and as the prices of Verizon-MA's competitors' services change. These parameters, in turn, depend on market conditions (e.g., the degree to which other services supplied by Verizon-MA and by competitors are substitutes or complements for the Verizon-MA services in question), and it is unlikely that econometric estimates of these parameters from other times and other geographic areas will be relevant. In particular, the market demand elasticities discussed in the econometric literature were measured from data which did not include competitors' offerings, substitute services such as Voice over Internet, or complex optional calling plans. Further, these elasticities were measured at a time when toll prices were much higher than current prices, and in most models of long distance demand, the effect of price changes on demand is smaller at lower levels of price. In addition, even if we knew the correct values of these effects, we would still need to make assumptions about the responses of Verizon-MA's competitors to its price changes. Knowing these responses is essential to determine the revenue effect of the assumed Verizon MA price changes, and competitors' responses are fundamentally unknowable and unpredictable from historical data. As a result, application of the traditional demand response formula does not yield the correct effect of the price change on revenue, and the information necessary to measure that effect is unavailable in fact and in principle.

With those caveats in mind, it is possible to determine a bound on the possible effect of demand response and to show that the Company's proposed $1 plus $1.63 per month residential dial tone line increase produces significantly less revenue than this conservative estimate of the revenue loss (net of demand stimulation) from the assumed switched access and toll reductions.

Ignoring demand response, the reduction in average access charges from $0.03949 to $0.01257 per minute produces an annual revenue reduction of $51.947 million, which amounts to $1.63 per month per residential access line. Assume a market own-price elasticity for intraLATA toll of –0.30. Assume further that the demand for switched access is exclusively derived from the demand for toll and that any change in switched access prices is fully passed through to customers in toll price changes. Under these simplistic assumptions, the corresponding own-price elasticity of the demand for switched access is about –0.24, which is given by the product of the toll elasticity (-0.30) and the ratio of access and toll average revenues per minute. Note that these assumptions maximize the demand response from an

access price change.

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Including demand response to the access price change then lowers the revenue reduction to $44.434 million per year or $1.39 per month per residential access line. Because the assumption of complete pass-through produces the largest measure of access demand response, this calculation of the expected revenue reduction net of demand stimulation is conservative: i.e., annual revenue losses from the assumed access price reduction would be at least $44.434 million.

However, because we assume complete pass-through of access charge reductions, Verizon-MA's total revenue reduction from the access charge reduction would be much larger than $44.434 million. If its competitors reduced their toll prices under the assumption of complete pass-through of access charges, Verizon-MA would be compelled to reduce its toll prices as well. Assuming a dollar-for-dollar reduction in Verizon-MA's toll prices would yield an additional reduction of $82.709 million per year in Verizon MA's residential toll revenues (including the effect of toll demand stimulation). Thus, the total annual reduction in Verizon MA access and residential toll revenues under these assumptions (including the effects of demand stimulation) would amount to $127.144 million or $3.99 per month per residential access line.

Again, this accounting for demand stimulation rests on the assumption of (i) complete pass-through of access charge reductions by all competitors and (ii) a market own-price elasticity for toll of –0.30. If pass-through is less than complete, demand stimulation will be smaller and Verizon-MA's revenue losses will be larger. In that sense, $3.99 per month per residential access line is a conservative estimate of the revenue loss (net of stimulation) associated with the proposed access charge reduction.

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